A B S T R A C T

The integrated magnetostatic wave device comprises a substrate (1), a conductive ferromagnetic thin film (2) of thickness lying in the range about 250 nm to 450 nm and preferably being equal to about 300 nm, said thin film (2) being deposited on said substrate (1), a first transducer antenna (10) for receiving microwave electrical signals disposed parallel to said ferromagnetic thin film (2) in the vicinity thereof in order to create magnetostatic waves or spin waves in said material by inductive coupling, and a second transducer antenna (20) for transmitting microwave electrical signals disposed parallel to said ferromagnetic thin film (2) in the vicinity thereof in order to be inductively coupled thereto and in order to deliver microwave electrical signals on the arrival of a magnetostatic wave in the ferromagnetic thin film (2), said second antenna (20) being situated on the same side of the ferromagnetic thin film (2) as the first antenna (10) so as to be essentially coplanar therewith.